IN THE CLAIMS:

Please amend claims 11, 17 and 18 under the provisions of 37 CFR 1.116 as follows. The following listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1 (Previously Presented). A method for analyzing a data set of an object to be examined, which data set comprises voxels of at least a first type and a second type, said method comprising the steps of:

classifying the voxels as voxels of the first, the second or further types; thereafter

determining which of the voxels of the first type are boundary voxels that adjoin voxels of the second or further types; thereafter

assigning a data value to each voxel of the first type, said data value representing a measure of the distance between said voxel and the nearest boundary voxel; and thereafter

classifying the voxels of the first type that have a distance data value exceeding a predetermined threshold as aberration voxels indicative of an aberration in the object.

Claim 2 (Previously Presented). The method as defined by claim 1, further comprising the steps of:

determining which of the aberration voxels are boundary aberration voxels adjoining non-aberration voxels of the first type; and

adding a number of voxels of the first type that form a shell of a certain thickness to the aberration voxels.

Claim 3 (Previously Presented). The method as defined by claim 2, wherein the step of adding a number of voxels of the first type that form a shell of a certain thickness to the aberration voxels comprises the steps of:

assigning a data value to each voxel of the first type, said data value representing a measure of the distance between said voxel and the nearest boundary aberration voxel; and thereafter

classifying the voxels of the first type that have a distance data value less than or equal to a predetermined ceiling value as aberration voxels.

Claim 4 (Previously Presented). The method as defined by claim 1, further comprising the steps of:

determining the sum of all aberration voxels; and

multiplying the sum of the aberration voxels by the volume

of a single voxel so as to determine the volume of the aberration.

Claim 5 (Previously Presented). The method as defined by claim 1, wherein said distance data values are computed by means of a distance transform function.

Claim 6 (Previously Presented). The method as defined by claim 1, wherein said predetermined threshold is set by a user.

Claim 7 (Previously Presented). The method as defined by claim 1, wherein said predetermined threshold is computed on the basis of a histogram of distance data values.

Claim 8 (Previously Presented). The method as defined by claim 1, further comprising the steps of:

defining a tubular structure of voxels of the first type piercing through the aberration;

determining the number of voxels of the tubular structure; and

subtracting said number of voxels of the tubular structure from the number of aberration voxels.

Claim 9 (Previously Presented). The method as defined by

claim 8, further comprising the steps of:

determining which of the aberration voxels are boundary aberration voxels adjoining non-aberration voxels of the first type;

classifying all boundary aberration voxels as potential tubular structure voxels;

selecting a starting point from among the potential tubular structure voxels;

selecting an end point from among the potential tubular structure voxels; and

connecting the starting point to the end point thus defining the tubular structure.

Claim 10 (Previously Presented). A computer program for carrying out the method as defined by claim 1.

Claim 11 (Currently Amended). The method as defined by claim 3, wherein said predetermined ceiling value is set by a user.

Claim 12 (Previously Presented). The method as claimed defined by claim 3, wherein said predetermined threshold and said predetermined ceiling value are set by a user.

Claim 13 (Previously Presented). The method as defined by claim 3, wherein said predetermined ceiling value is computed on the basis of a histogram of distance data values.

Claim 14 (Previously Presented). The method as defined by claim 1, wherein said predetermined threshold and said predetermined ceiling value are computed on the basis of a histogram of distance data values.

Claim 15 (Previously Presented). The method as defined by claim 1, wherein the object is a blood vessel and the aberration is an aneurysm.

Claim 16 (Previously Presented). A method for delineating an aneurysm in a blood vessel, comprising the steps of:

representing the blood vessel by means of a data set comprising voxels;

classifying the voxels as vessel voxels or tissue or other type voxels; thereafter

determining which of the vessel voxels are boundary vessel voxels that adjoin tissue or other type voxels; thereafter

assigning a data value to each vessel voxel, the data value representing a measure of the distance between the vessel voxel and the nearest boundary vessel voxel; and thereafter

classifying the vessel voxels that have a distance data value exceeding a predetermined threshold as aberration voxels indicative of an aneurysm in the blood vessel.

Claim 17 (Currently Amended). The method as defined by claim 16, further comprising the steps of:

determining which of the aberration voxels are boundary aberration voxels adjoining non-aberration vessel voxels ~~of the first type~~; and

adding a number of vessel voxels ~~of the first type~~ that form a shell of a certain thickness to the aberration voxels.

Claim 18 (Currently Amended). The method as defined by claim 17, wherein the step of adding a number of vessel voxels ~~of the first type~~ that form a shell of a certain thickness to the aberration voxels comprises the steps of:

assigning a data value to each vessel voxel ~~of the first type~~, said data value representing a measure of the distance between said vessel voxel and the nearest boundary aberration voxel; and thereafter

classifying the vessel voxels ~~of the first type~~ that have a distance data value less than or equal to a predetermined ceiling value as aberration voxels.

Claim 19 (Previously Presented). The method as defined by claim 16, further comprising the step of determining the volume of the aneurysm by determining the sum of all aberration voxels, and multiplying the sum of the aberration voxels by the volume of a single voxel.

Claim 20 (Previously Presented). The method as defined by claim 16, wherein the voxels are classified by means of a region growing algorithm.